

REMARKS

Upon entry of the forgoing amendments, claims 1-8, 13, 25, and 26 are pending in this application with claims 1, 5, 13, 25, and 26 being independent claims. No claim is allowed.

Claims 1, 5, 13, 25, and 26 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention. Support for these changes may be found in the specification in FIG. 3 and on page 8, line 14 through page 9, line 11, among others.

The 35 U.S.C. § 103 Rejection

Claims 1-8, 13, 25, and 26 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over *Gruetzner et al.* (US 5,444,715) in view of *Parker et al.* (US 5,513,188). This rejection is respectfully traversed.

Generally, the Office Action states that *Gruetzner* discloses or suggests all of the claim elements and limitations except for boundary scan cells which are generically disclosed by *Parker*. In the Response to Amendments, the Final Office Action states that the "capacitor" element argued by the Applicant is not recited in the rejected claims and that "*Gruetzner* clearly teaches AC coupled interconnection." However, *Gruetzner* fails to address testing AC *coupled* interconnects as defined and variously claimed.

According to M.P.E.P. § 2143.03, "[t]o establish prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art." The current rejection is in violation of this requirement by ignoring the word "coupled" in the claims. The claims include the term "AC coupled interconnection" while the prior art of *Gruetzner* uses the term "AC interconnection". The two are not synonymous. The former relates to the electrical

characteristics of the interconnection and the latter relates merely to the signals being carried over the interconnection.

On page 8, lines 16-22, the specification defines the term "AC coupled interconnection" as follows: "One such [design] practice is the inclusion of capacitive coupling in the interconnections between ICs. A capacitor is added either to the connection between the ICs or to one, the other, or both of the I/O pins of the ICs or the PCBs with connectors. The capacitor is designed to reduce noise and block unwanted common mode voltage differences in the interconnection. For discussion, this will be referred to alternatively as either being AC coupled or DC de-coupled." Seven example AC coupled interconnections in accord with this definition are shown in FIG. 3 of the specification.

No alternative definition for the term "AC coupled interconnection" is provided by the prior art or the Office Action. In fact, *Gruetzner* never even once uses the word coupled so it is impossible for him to unmistakably give an alternative definition either explicitly or implicitly. Upon close review, one will find that there are no capacitors shown by *Gruetzner* in any of the figures. In fact, the words capacitor, capacitive, capacitance, capacitively, farad, coulomb, and accumulator never even appear in the specification of *Gruetzner*. Thus the line 124 of FIG. 1 and the lines 324 and 334 of FIG. 3 of *Gruetzner* are not "AC coupled interconnections" as claimed. According to the terminology of the Applicant, these lines are DC coupled only. The importance of the difference between AC and DC coupling, as opposed to AC and DC signals, is noted in the specification on page 9, lines 3-6 as follows: "Because of the capacitor, the value of a signal at the receiving end of the interconnection is no longer the same as the value at the driving end. The result is that conventional 1149.1 testing becomes impractical on AC coupled interconnections."

Given the total lack of a capacitor or capacitive coupling, the *Gruetzner* reference can not be considered analogous art and should be withdrawn. According to M.P.E.P. § 2141.01, "[I]n order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." Without *Gruetzner* the rejection fails to be properly supported and should likewise be withdrawn.

Although the Applicant contends that the existence of the capacitor is implicit in the only definition of the term "AC coupled interconnection" that is made of record, the independent claims have been amended to emphasize that the ICs are "capacitively" coupled together. As noted above, examples are shown in FIG. 3 for reference and support.

Given this difference, among others, one can not say that the presently claimed invention is rendered obvious by the cited prior art.

In view of the above, it is respectfully asserted that the claims are now in condition for allowance.

Request for Allowance

In view of the foregoing, reconsideration and an early allowance of this application are earnestly solicited.

If any matters remain which could be resolved in a telephone interview between the Examiner and the undersigned, the Examiner is invited to call the undersigned to expedite resolution of any such matters. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,
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